



## Lake Thompson Management Report Popular Report Federal Aid Project – F111R11 2003

Lake Thompson is a 9.8-acre impoundment located in northern Fauquier County within the borders of the G.R. Thompson Wildlife Management Area. Facilities are limited with a makeshift access/ramp available for anglers wishing to launch a canoe or small boat. Parking is restricted to a parking lot approximately 0.2 miles downstream of the lake. However, anglers with a valid handicapped parking permit from DMV may park lakeside.

Lake Thompson has a long history of attempts to correct unbalanced fish populations. Attempts to restructure the largemouth bass or bluegill populations between 1976 and 1986 by stocking fingerling and adult bluegill, fingerling redear sunfish, golden shiners, and fathead minnows failed to alter the largemouth bass or bluegill populations. Evidence showed that largemouth bass were suffering from overpopulation and that the current forage base could not support a balanced fishery. Several hundred largemouth bass were removed in 1982 in an unsuccessful attempt to restructure the population. In September 1985, an attempt to renovate the lake using Antimycin failed. In August 1986, the entire fish population was eradicated using liquid rotenone. Failure to establish an acceptable largemouth bass fishery may be a result of colder water temperatures maintained throughout the spring and summer in this alpine impoundment. Fingerling and adult smallmouth bass, fingerling bluegill, redear sunfish, golden shiners, fathead minnows, and channel catfish were stocked following the rotenone application. Channel catfish were stocked annually from 1987-1992. Additional smallmouth bass fingerlings were stocked in 1988 and redear sunfish in 1990. Lake Thompson was added to the catchable trout stocking program in 1995 after available coldwater habitat was documented during the spring and summer months. This resource is classified as a

Category A trout water, which receives eight stockings of catchable (9-11 inches) rainbow, brook, or brown trout during the stocking period that runs from October till May. Anglers are reminded that a trout license is required to fish Lake Thompson from October 1 through June 15. From June 16 through September 30 anglers can fish without a trout license. The creel limit on trout is 6 per day.

DGIF fisheries biologists sample the fishery approximately every three to five years. Most recently, an electrofishing sample was conducted in May of 2002. Biologists employ numerical descriptors of length-frequency data such as Proportional Stock Density (PSD) and Relative Stock Density (RSD) when evaluating fish populations. Proportional Stock Density is calculated by dividing the number of fish  $\geq$  minimum quality length by the number of fish  $\geq$  minimum stock length x 100. Quality length is defined as the minimum size of fish most anglers like to catch. Stock length is the minimum length at which a fish provides recreational value. Relative Stock Density (RSD) is simply the percentage of any designated length group found within a population. RSD is calculated by dividing the number of fish  $\geq$  specified length by the number of fish  $\geq$  minimum stock length x 100.

The population structure of smallmouth bass continues to improve as the fishery expands, with the 2002 sample sporting an impressive Catch Per Unit Effort (CPUE) of 143 fish/hour of electrofishing. Currently, the smallmouth bass Proportional Stock Density (PSD) is 41, which falls into the range of a balanced population (PSD's 40-60). Relative Stock Density of "Preferred" fish (RSD-P) greater than 14 inches was 12, which also falls into the desirable range for a balanced fishery (RSD-P 10-40). Anglers in pursuit of the explosive bronzeback should enjoy this unique mountain lake fishery that supports fish up to 22 inches.

Lake Thompson is well represented by a diversity of panfish species, including bluegill, redear sunfish, pumkinseed, green sunfish, warmouth, and various hybrids. Bluegill, pumkinseed, and redear sunfish provide most of the angling action. The bluegill fishery is currently in balance with a PSD of 36 (balance 20-60). Anglers looking to catch a mess of bluegill, will be delighted to find a good population of fish in

the 6-7 inch range. Pumkinseed are also quite abundant, but the size structure for this species is skewed to less than 5 inches and the associated PSD is 3 (balance 20-60). On the other hand, redear sunfish PSD is 85 (balance 20-60). Redear catch data revealed that the population was comprised of individuals ranging between 6 and 10 inches. Redear sunfish growth appears to be excellent, but reproduction seems to be lacking. Periodic maintenance stockings may be required to maintain this desirable fishery.

Channel catfish are no longer stocked annually into Lake Thompson. The last stocking occurred in 1992, and a few catfish may still remain for anglers to catch. Channel catfish generally do not reproduce successfully in small ponds and lakes (<500 acres) requiring routine introductions for the maintenance of a fishery. Anglers interested in pursuing channel catfish are encouraged to visit nearby Department owned Lakes Brittle and Burke.

Anglers can access Lake Thompson by taking I-66 west from the Washington area to the Markham exit. Follow Rt. 688 north about 1 mile until you reach the second parking lot on the left at the G.R. Thompson Wildlife Management Area.

For more information on Lake Thompson please contact:

Steve Owens, Fisheries Biologist Virginia Department of Game and Inland Fisheries 1320 Belman Road Fredericksburg, VA 22401 540-899-4169